

COVER STORY

Boom Times on the Psychic Frontier

Glendower: I can call spirits from the vasty deep.

Hotspur: Why, so can I, or so can any man;

But will they come when you do call for them?

—Henry IV

For all the enormous achievements of science in posting the universe that man inhabits, odd things keep slipping past the sentries. The tap on the shoulder may be fleeting, the brush across the cheek gone sooner than it is felt, but the momentary effect is unmistakable: an unwilling suspension of belief in the

and memory? Could there be a paranormal world exempt from known natural law?

Both in America and abroad, those questions are being asked by increasing numbers of laymen and scientists hungry for answers. The diverse manifestations of interest in so-called psychic phenomena are everywhere:

► In the U.S., *The Secret Life of Plants* becomes a bestseller by offering an astonishing and heretical thesis: greenery can feel the thoughts of humans.

► At Maimonides Medical Center in New York City, the image of a paint-

spoons and keys apparently with the force of his thoughts.

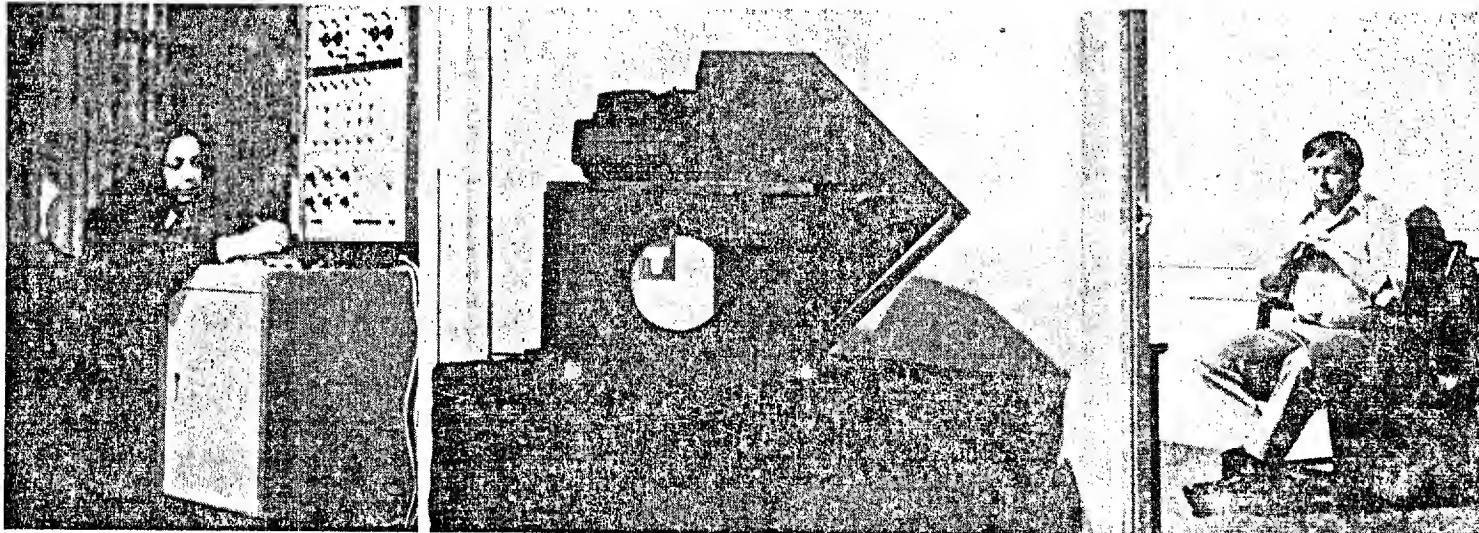
► In the Philippines, Tennis Star Tony Roche is relieved of painful "tennis elbow" when an incision is made and three blood clots are apparently removed by the touch of a psychic healer, who knows nothing of surgery or of modern sanitation.

► In the U.S., the number of colleges offering courses in parapsychology increases to more than 100.

► In the U.S.S.R., researchers file reports on blindfolded women who can "see" colors with their hands.

► In California, ex-Astronaut Edgar

HENRY GROSINSKY



DEVICE SET UP TO RECORD OUT-OF-BODY TRIP AT AMERICAN SOCIETY FOR PSYCHICAL RESEARCH
Questionable procedures costumed in the prim gown of laboratory respectability.

rational. An old friend suddenly remembered, and as suddenly the telephone rings and the friend is on the line. A vivid dream that becomes the morning reality. The sense of bumping into one's self around a corner of time, of having done and said just this, in this place, once before in precisely this fashion. A stab of anguish for a distant loved one, and next day, the telegram.

Hardly a person lives who can deny some such experience, some such seeming visitation from across the psychic frontier. For most of man's history, those intrusions were mainsprings of action, the very life of Greek epic and biblical saga, of medieval tale and Eastern chronicle. Modern science and psychology have learned to explain much of what was once inexplicable, but mysteries remain. The workings of the mind still resist rational analysis; reports of psychic phenomena persist. Are they all accident, illusion? Or are they other planes and dimensions of experience

ing is transmitted by ESP, and seems to enter the dreams of a laboratory subject sleeping in another room.

► In England, a poll of its readers by the *New Scientist* indicates that nearly 70% of the respondents (mainly scientists and technicians) believe in the possibility of extrasensory perception.

► At the University of California, Psychologist Charles Tart reports that his subjects showed a marked increase in ESP scores after working with his new teaching machine.

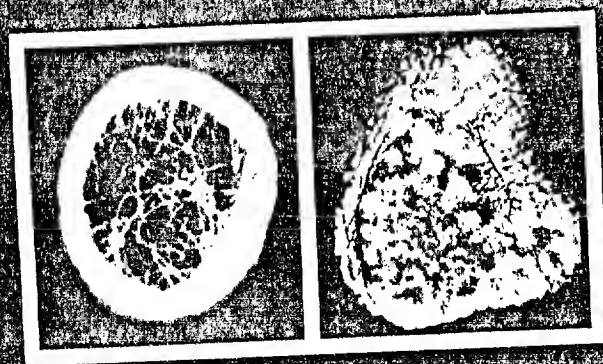
► In Los Angeles, a leaf is cut in half, then photographed by a special process. The picture miraculously shows the "aura" or outline of the whole leaf.

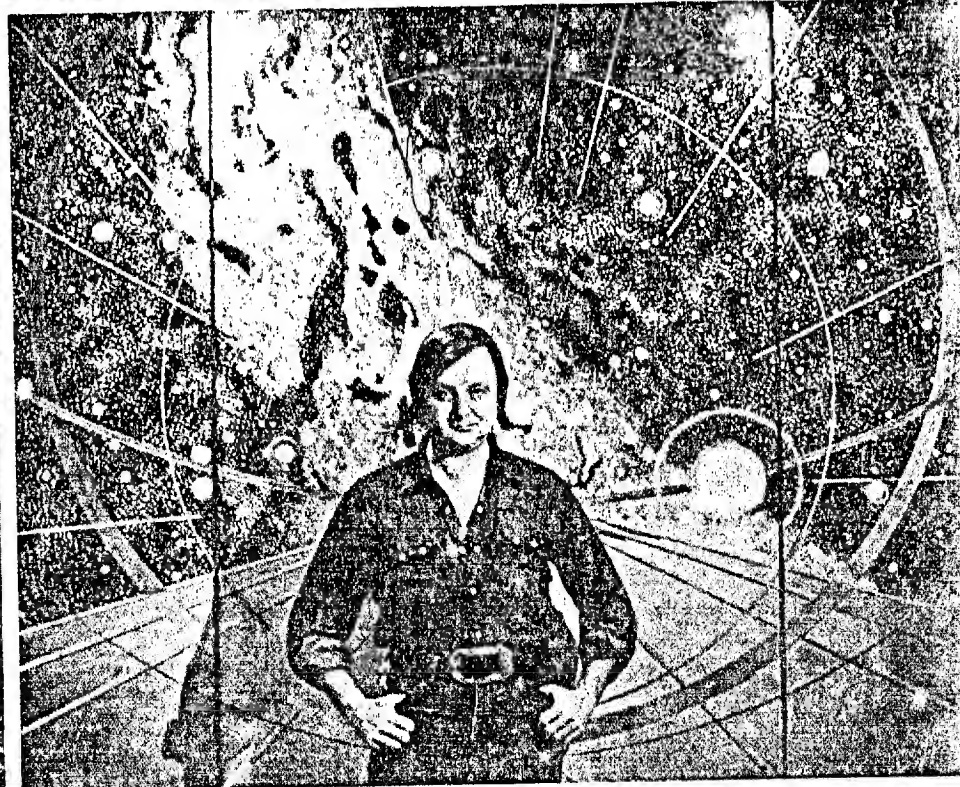
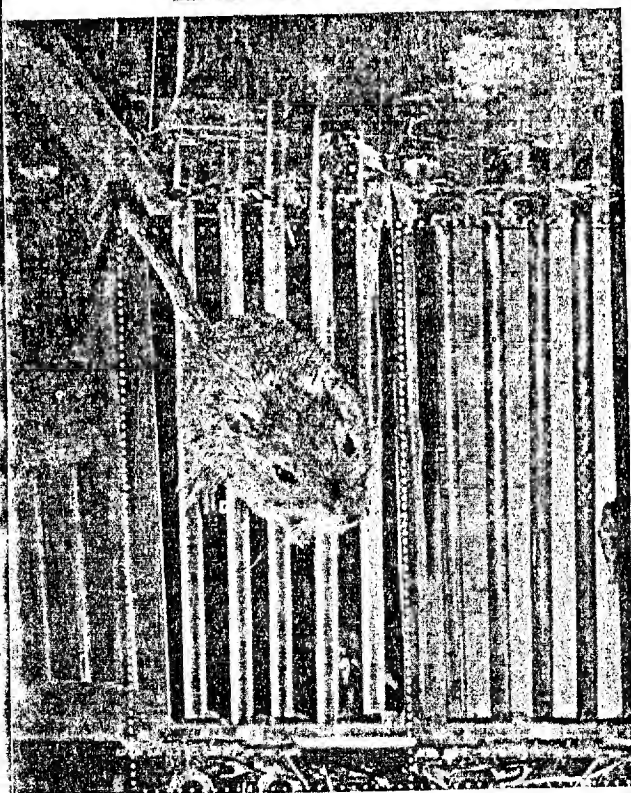
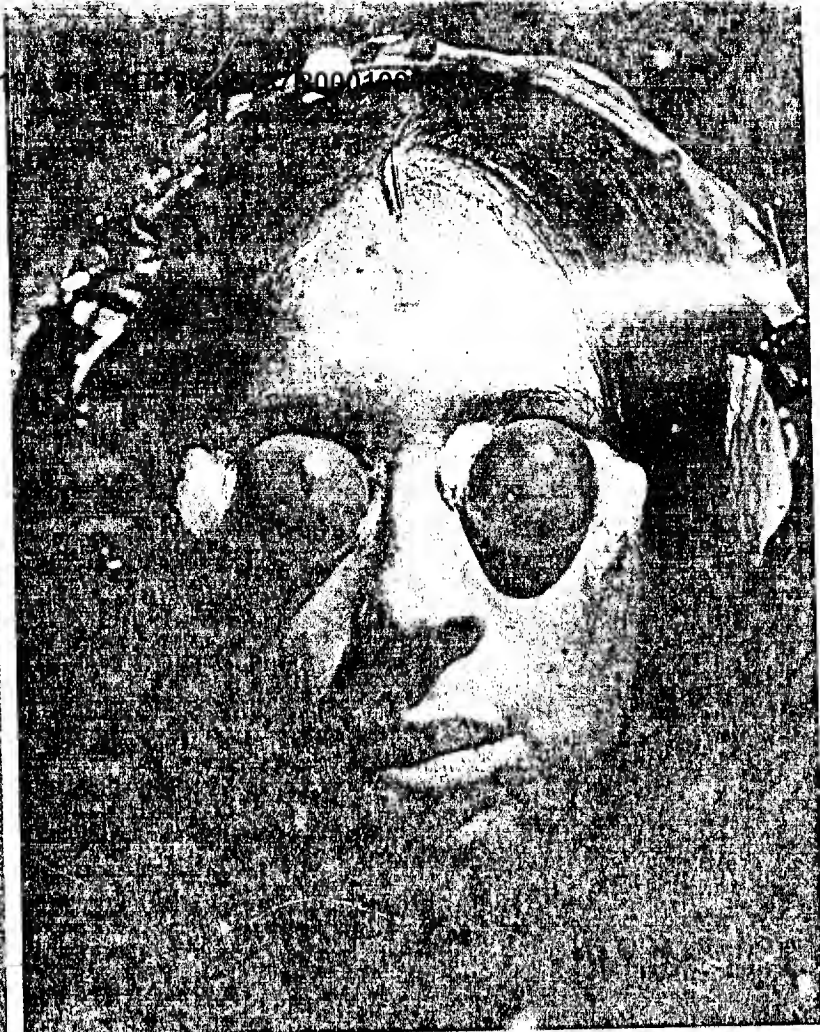
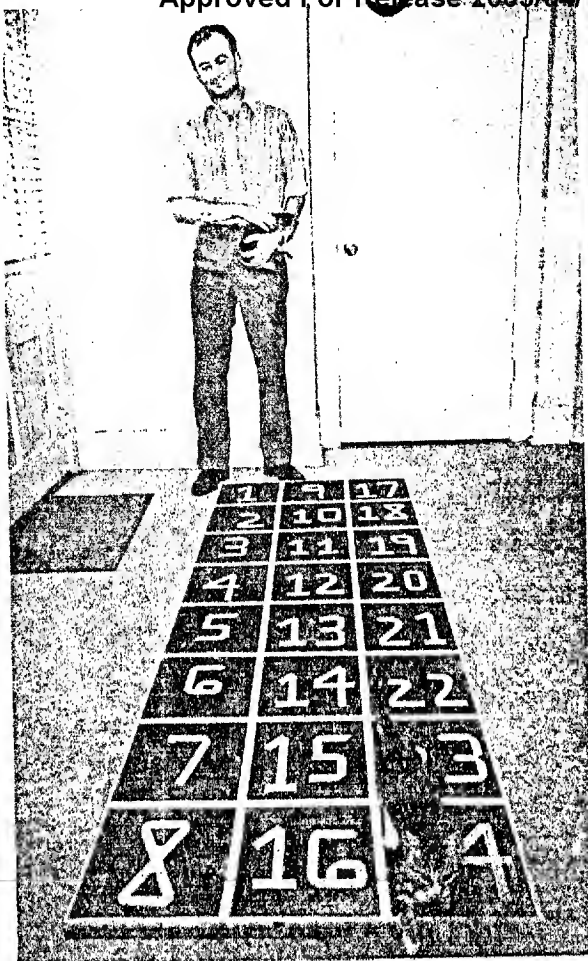
► In Washington, the Defense Department's Advanced Research Projects Agency assigns a team to investigate seemingly authentic psychic phenomena at the Stanford Research Institute.

► On both sides of the Atlantic, Uri Geller, a young Israeli psychic, astounds laymen and scientists alike by bending

Mitchell, who while on the Apollo 14 moon mission conducted telepathy experiments with friends on earth, founds the Institute of Noetic Sciences. His new mission: investigate occurrences that will not yield to rational explanation.

► In London, Arthur Koestler examines psychic research with the zeal of the believer. Koestler, one of the foremost explicators of Establishment science (*The Sleepwalkers*, *The Act of Creation*), speaks of "synchronized" events that lie outside the expectations of probability. In anecdotes of foresight and extrasensory perception, in the repetition of events and the strange behavior of random samplings, Koestler spots what he calls the roots of coincidence. In his unforgettable metaphor, modern scientists are "Peeping Toms at the keyhole of eternity." That keyhole is stuffed with ancient biases toward the materialistic and rational explanation and, consequently, away from the emerging field of psychic research. Once skeptics aban-





CLOCKWISE, FROM LEFT: At Durham's Psychical Research Foundation, Robert Morris displays test in which subject outside of room "influences" movement of a cat; sensory-isolation and telepathy experiment at Maimonides

Medical Center in New York City; Artist and Psychic Ingo Swann with painting completed after his "out of body" adventure in outer space; gerbil in tests for precognitive powers at The Institute for Parapsychology in Durham, N.C.

don those prejudices, says Koestler "they will be free to create new categories."

That exploration is already being conducted by a number of serious parapsychologists in a wide range of disciplines. In his Foundation for the Research on the Nature of Man, in Durham, N.C., the grand old man of paranormal studies, J.B. Rhine (see box page 70), still keeps watch on test animals for precognitive powers. At the nearby Psychical Research Foundation, William Roll and a research staff investigates "survival after bodily death." In studies with a "sensitive" and his pet cat, Roll finds evidence for a human ability "to leave"

VALERY SHUSTOV



RUSSIAN FINGER-READING TEST
Basically show biz.

the body and "visit" the animal. At the University of Virginia Medical School, Psychiatrist Ian Stevenson also studies the plausibilities of reincarnation.

At the Division of Parapsychology and Psychophysics of the Maimonides Medical Center, Dr. Montague Ullman directs tests in which message senders "think" images into the brains of sleeping subjects. "If we had adequate funding," says Ullman, "we could have a major breakthrough in this decade." In Connecticut, Businessman Robert Nelson directs the Central Premonitions Registry, meticulously recording the prophecies of the dreams and visions that people send him.

All of these researchers believe to

some extent in the existence of some form of ESP. The forms are open to wide debate. Says Psychologist Gardner Murphy, professor at the District of Columbia's George Washington University, and a dean of psychic researchers, "It may well turn out that parapsychology will be a multidisciplinary thing, owing much to psychiatry, neurology... medicine, biochemistry, social sciences." One of parapsychology's most famous proponents, in fact, is an anthropologist: Margaret Mead. It was her passionate advocacy that helped give the Parapsychological Association its greatest claim to legitimacy. After several vain attempts to enter the eminent American Association for the Advancement of Science, the P.A. won membership in 1969—after a speech by Mead. Her argument: "The whole history of scientific advance is full of scientists investigating phenomena that the Establishment did not believe were there. I submit that we vote in favor of this association's work." The final vote: 6 to 1 in favor of admission.

Immense Claims. As parapsychology gains new respectability, so do its terms gain wide currency: "psi" for any psychic phenomenon; "clairvoyance" for the awareness of events and objects that lie outside the perimeters of the five senses; "out-of-body" experience for seeming to journey to a place that may be miles from the body; "psychokinesis" for the mental ability to influence physical objects; "precognition" for the foreknowledge of events, from the fall of dice to the prediction of political assassinations; and the wide-ranging term ESP for extrasensory perception.

For all its articulate spokesmen and scientific terminology, however, the new world of psi still has a serious credibility problem. One reason is that like any growth industry or pop phenomenon, it has attracted a fair share of hustlers. Indeed, the psychic-phenomena boom may contain more charlatans and conjurers, more naifs and gullibles than can be found on the stage and in the audience of ten Ringling Brothers circuses. The situation is not helped at all by the "proofs" that fail to satisfy traditional canons of scientific investigations. Despite the published discoveries, despite the indefatigable explorations of the psychic researchers, no one has yet been able to document experiments sufficiently to convince the infidel. For many, doubt grows larger with each extravagant claim.

To Science and Mathematics Analyst Martin Gardner (*Relativity for the Million*, *Ambidextrous Universe*), announcements of psychic phenomena belong not to the march of science but to the pageant of publicity. "Uri Geller, *The Secret Life of Plants*, telepathy, ESP, the incomplete conclusions of Koestler—all seem part of a new uncritical enthusiasm for pseudo science," says Gardner. "The claims are immense, the proof nonexistent. The researchers, almost without exception, are emotionally com-

mitted to finding phenomena. And few controls necessary in a field in which deception, conscious or unconscious, is all too familiar."

Daniel Cohen, former managing editor of *Science Digest* and author of the debunking volume *Myths of the Space Age*, remains unpersuaded by what he sees through the Koestlerian keyhole. "After decades of research and experiments," Cohen observes, "the parapsychologists are not one step closer to acceptable scientific proof of psychic phenomena. Examining the slipshod work of the modern researchers, one begins to wonder if any proof exists."

The criticism that psychics find hardest to counter comes not from scientists but from conjurers. Theoretically, magicians have no place in serious science. But they are entertainers whose business it is to deceive; thus they feel that they are better qualified to spot chicanery than scientists, who can be woefully naive about the gimmicks and techniques that charlatans may use for mystical effects. James Randi, who appears on television as "the Amazing Randi," duplicates many of Uri Geller's achievements with a combination of sleight of hand, misdirected attention and patented paraphernalia, then calls them feats of clay. "Scientists who fall for the paranormal go through the most devious reasoning," Randi says. "Fortunes are squandered annually in pursuit of mystical forces that are actually the result of clever deceptions. The money would be better spent investigating the tooth fairy or Santa Claus. There is more evidence for their reality."

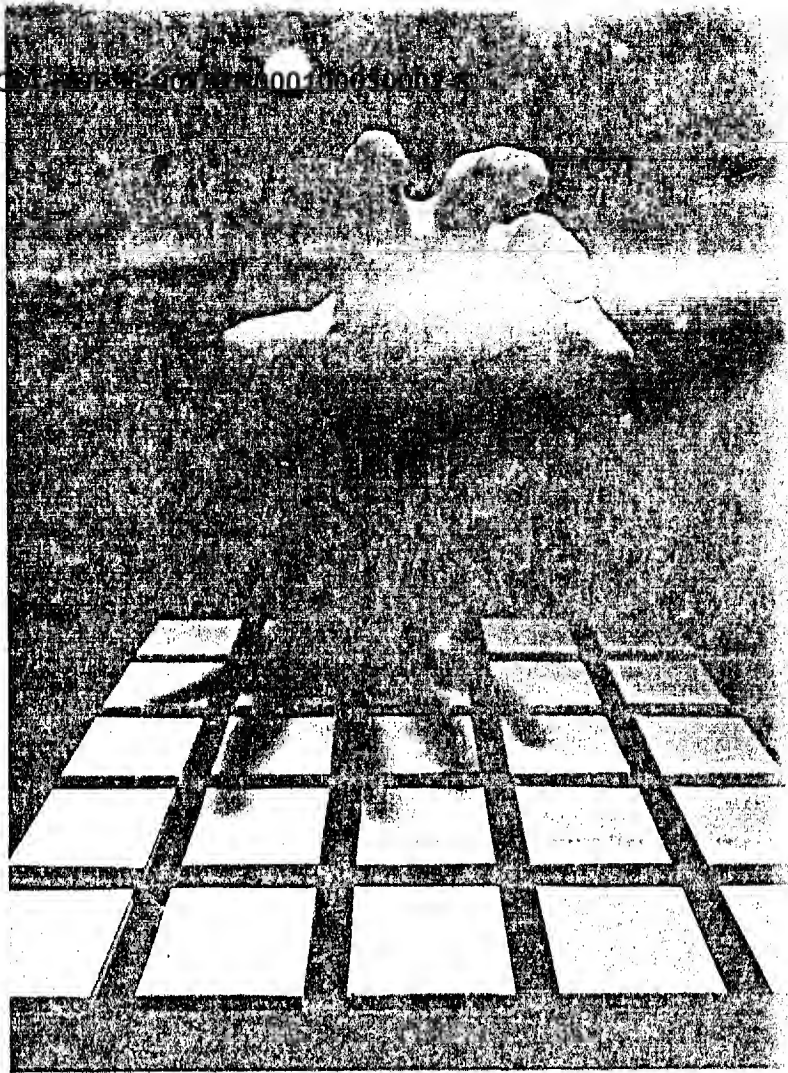
Pure Deception. Charles Reynolds, editor and member of the Psychic Investigating Committee of the American Society of Magicians, agrees. "When evaluating the research, we have found that the researcher's will to believe is all powerful. It's a will that has nothing to do with religion; there are Marxists, atheists, agnostics who cling stubbornly to the ancient faith in black magic. Only now it's called 'the paranormal.'"

That faith is nowhere more evident than in the U.S.S.R., which has been beset in recent years with controversial sensitives. One, Ninel Kulagina, was appraised as capable of causing objects to float in mid-air. As Martin Gardner notes, "She is a pretty, plump, dark-eyed little charlatan who took the stage name of Ninel because it is Lenin spelled backward. She is no more a sensitive than Kreskin, and like that amiable American television humbug, she is basically show biz." Indeed, Ninel has been caught cheating more than

U.C.L.A. Psychologist Thelma Moss explores the mysteries of Kirlian photography—pictures believed by some to show the "aura" of living things. Insert: Kirlian photos of normal elbow (left) and same elbow while experiencing mild electrical shock.

CLOCKWISE FROM LEFT: Approved For Release 2003/04/18 : CIA-RDP96-00787R000100030002-8
the Menninger Foundation prepares a biofeedback test for a fraud who duplicates psychic feats with a combination of sleight-of-hand, psychology and theatrical gimmicks checks set of "ESP" cards; Trinidadian "sensitive" performing card clairvoyance experiment at The Institute for Parapsychology.





once by Soviet Establishment scientists.

Another Russian lady, Rosa Kulshova, can "read" with her fingertips while securely blindfolded. James Randi, analyzing photographs of Kulshova, promptly announced that her act was "a fraud." To prove his point, he invited testers to blindfold him with pizza dough, a mask and a hood. Then he proceeded to drive a car in traffic. "I won't tell you how I did it," he says. "But it was not parapsychologically. It was pure deception, just as hers was." Such revelations have not deterred the parapsychologists in the U.S.S.R. or elsewhere. They freely concede that many of their subjects do sometimes cheat, but still may have paranormal powers.

In and out of the laboratory, many paranormalist investigators conduct experiments that mock rigorous and logical procedure. Claims are made, and the burden of proof is shifted to the doubter. Ground rules are laid down by the psychic subject and are all too eagerly accepted by his examiner. If the venture proves unsuccessful, a wide range of excuses are proffered: an unbeliever provided hostile vibrations; the subject was not receiving well; negative influences were present; testing rules were too restrictive. It is all reminiscent of the laws in *Through the Looking-Glass*, where people approach objects by walking away from them. And it creates an atmosphere in which even a genuine paranormal subject might have a hard time certifying his abilities.

No one has contributed more to the paranormal explosion than Uri Geller, the handsome, 26-year-old Israeli former nightclub magician who seems equally adept at telepathy, psychokinesis and precognition. "I don't want to spend my whole life in laboratories," Geller recently told *TIME* London Correspondent Lawrence Malkin. "I've just done a whole year at Stanford Research Institute [*TIME*, March 12]. Now I'll go on to other countries, and let them see if they know what it is I've got."

Death Threats. At the Stanford Research Institute Geller successfully worked most of his repertoire of miracles. In a film made by S.R.I., Geller picks the can containing an object from a group of identical empty cans, influences laboratory scales, reproduces drawings sealed in opaque envelopes, deflects a magnetometer and correctly calls the upper face of a die in a closed box—eight times in eight tries. If Geller's prowess with dice is indeed paranormal, it raises serious and disturbing

if S.R.I.'s tests were indeed conducted with what University of Oregon Professor Ray Hyman calls "incredible sloppiness," then other disturbing questions may be raised. Assigned by the Department of Defense to report on the wondrous happenings at S.R.I., Hyman, accompanied by George Lawrence, DOD projects manager for the Advanced Research Projects Agency, caught Geller in some outright deceptions.

Unhappily for Geller, his powers have a tendency to vanish in the presence of sleight-of-hand men. On the *Tonight Show*, where Johnny Carson instituted airtight controls at Randi's suggestion, nothing that Geller attempted (during an embarrassing 20 minutes) seemed to work. After a group of English magicians made plans to catch him

BILL EPPRIODE



PSYCHOLOGIST TART WORKING ESP MACHINE
Searching for a wider kind of self.

in the act during a British tour, Geller abruptly canceled out, citing mysterious "death threats."

In the long run, however, Geller's friends may well be more damaging to his cause than are his detractors. This spring the reputable old firm of Doubleday will publish a book entitled *Uri* by Dr. Andrija Puharich, who brought Geller to the U.S. from Israel. In a crude mishmash of *Mission: Impossible*, 2001 and the James Bond series, Puharich (author of a previous volume on the psychodelic effects of mushrooms) soberly describes his adventures with Geller.

From outer space, highly intelligent computers called SPECTRA communicate through taped messages, which disappear. "We can only talk to you through Uri's power," says the mystical voice. "It is a shame that for such a brilliant mind we cannot contact you di-

rectly." Uri meets the investigators from S.R.I., he confesses that outer-space intelligence directs his work. But the S.R.I. scientists are not taken aback. One, Russell Targ, placidly remarks, "The things you are telling us agree very well with things that Hal [S.R.I. Colleague Harold Puthoff] and I believe but we can't prove." Adds Astronaut Ed Mitchell: "Uri, you're not saying anything to us we don't in some way already sense or understand." The text raises some troubling questions. Is Puharich indeed in touch with what he calls "my editor in the sky"? Is his account of the S.R.I. meeting as true as his reasonably accurate report of Uri's meeting a year ago with the editors of *TIME*? If it is, why have the S.R.I. scientists failed to mention Uri Geller's contacts with outer space? Are they

properly fearful of that most irrefutable antidote to nonsense: laughter? Or were they, as they now claim, merely "humoring" their subject?

Almost as impressive as Geller's rise to fame is the phenomenal success of *The Secret Life of Plants* (Harper & Row; \$8.95), a volume that is unaccountably placed on the nonfiction shelves of bookstores. The work of two occult journalists, *Secret Life* is an anthology of the absurd, costumed in the prim gown of laboratory respectability. In it are researchers like Cleve Backster, a lie-detector expert who attached the terminals of his machines to plants. Behold! The vegetation reacted to his thoughts. Most scientists have greeted the experiments with open skepticism—with good reason. After his plants would not respond for a visiting Canadian plant physiologist, for example, Backster offered an interesting hy-

pothesis: the plants "fainted" because they sensed that she routinely incinerated her own plants and then weighed the ashes after her experiments.

Backster is the essence of conservatism compared with the book's more adventurous researchers. A New Jersey electronics buff, Pierre Paul Sauvin, attached a Rube Goldbergian machine to his plants, and then spent the weekend with his girl friend at a place 80 miles away. He found that even at that distance the plants had responded to his sexual relations with the girl. The tone oscillators went "right off the top," he says, at the moment of orgasm.

In Japan, Ken Hashimoto, another polygraph expert, discovered that his cactus could count and add up to 20. George De La Warr, a British engineer, insisted that young plants grew better if their "mother" were kept alive. Ironi-

CLOCKWISE FROM UPPER LEFT: Psychic Uri Geller, whose reputed ability to bend objects with his mind has stirred sharp debate; ESP test at the American Society for Psychical Research; Lie Detector Expert Cleve Backster with plant that he believes can "read" his thoughts; in psychokinesis test, subject tries to influence sequence in which bulbs will light.

cally, the authors did not address themselves to some significant facts about botany. Plants do respond physiologically to certain sound waves. Talking to a plant may indeed make it healthier, because it thrives on the carbon dioxide exhaled by the speaker.

Many psychics and their followers believe that paranormal powers may be dependent on mysterious auras or "energy flows," phenomena that they say can be recorded by Kirlian photography. The technique, developed in the late 1930s by Russian Electronics Expert Semyon Kirlian and his wife Valentina, involves introducing a small amount of high-voltage, high-frequency current into the subject and recording the subsequent discharge on photographic film. The result is a photograph showing an "energy body"—a weird aura—around the plant, animal or human part being photographed.

Soon, Kirlians claimed that photographing a portion of a leaf, for example, would produce the aura of the entire leaf on film. Some psychics claim that in time the aura of a missing limb might be discernible with Kirlian photography. Today the process is an integral part of paranormal exploration. In the U.S. the leading proponent of the

Moss, who has taken more Kirlian photographs and done more experimental work with them than anyone outside Russia.

Moss, a former Broadway actress, found her interest in parapsychological phenomena kindled after LSD therapy. "From the first," she recalls, "I intended to specialize in parapsychology because of the glimpses of psychic phenomena I experienced during the LSD treatments. But I certainly don't feel the need to use drugs any more . . . When you've gotten the message, you hang up the phone." For Moss, the message is that Kirlian photography clearly demonstrates a human aura. "We have done work with acupuncturists and [psychic] healers," she says, "and we find that the corona of the healer becomes intense before healing, and then afterward is more relaxed and less strong. We think we're looking at a transfer of energy from the healer to the injured person."

Others are less certain. Writing in the *Photographic Society of America* journal, Bill Zalud concluded, "All speculation hinges on obtaining photographs of normal tissue patterns for comparative purposes and, so far, no one has really determined what a normal Kir-

lian aura is." Stanford Professor William Tiller, an enthusiast of the paranormal, is more assured about the technical cause of Kirlian phenomena on film. "What we're looking at," he maintains, "is cold electron discharge."

Sickly Tissue. Says L. Jerome Stanton, author of a forthcoming book on auras and Kirlian photography: "Perhaps some day the technique will be a valuable diagnostic tool. Maybe sick people do have different 'auras.' But as of now, there is no assurance that it is at all useful." Though not accusing Kirlian researchers of faking effects, Stanton notes that the famous "phantom leaf" is easy to duplicate by double-exposing the film, first with the whole leaf, again after a portion has been removed, and that different voltages and conditions can change the picture in incalculable ways. "Working with advanced equipment," he says, "I could produce Kirlian effects that would astound the unsophisticated, and that includes a lot of scientists and physicists. Remember, electronics and photography are two very complicated

A Long History of Hoaxes

The first professional organization to study paranormal phenomena was the British Society for Psychical Research, founded in 1882. Among its membership were prominent scholars and scientists—men of unimpeachable credentials and high moral character. They soon discovered and enthusiastically reported on the telepathic abilities of five little girls, daughters of the Rev. A.M. Creery. The mentalist millennium was at hand. Six years later, the girls were caught cheating and shamefacedly admitted that they had fooled the investigators. They were the first in a long series of deceivers of scientists.

The society's next major project was an investigation of two "sensitives" from Brighton, G.A. Smith and Douglas Blackburn. Smith would allow himself to be blindfolded, his ears to be plugged, his body to be thoroughly blanketed; yet somehow the thoughts of Blackburn reached him. This time, it seemed, the S.P.R. had really justified its existence.

When Smith left the S.P.R. in 1892, no other comparable sensitive could be found. Still, the members had seen the telepathy performed with their own eyes; the evidence was held acceptable. It was not until 1908 that Blackburn admitted deceit. "The whole of these alleged experiments were bogus," he later wrote. The remainder of his statement has echoed to this day: "[Our hoax] originated in the honest desire of two youths to show how easily men of scientific



COMING OF THE FAIRIES

mind and training could be deceived when seeking for evidence in support of a theory they were wishful to establish."

The American Society for Psychical Research, organized with the help of Philosopher William James in 1885, suffered similar embarrassments. Yet it pursued its quarry with vigor. As James had noted, "To upset the conclusion that all crows are black, there is no need to seek demonstration that no crow is black; it is sufficient to produce one white crow." But after 25 years of reading psychic literature and witnessing phenomena, James admitted that he was "theoretically no further than I was at the beginning, and I confess that at times I have been tempted to believe that the



EXPERIMENTER J.B. RHINE & VOLUNTEERS

Creator has eternally intended this departure of nature to remain baffling."

Other researchers had not been humble or uncertain. Late in the century, a self-styled sensitive named Henry Slade toured the U.S. and Europe making objects vanish and swinging compass needles without the aid of a magnet. He was so convincing that a German scientist published a book, *Transcendental Physics*, devoted to Slade's accomplishments. Again, the psychic millennium seemed imminent. But in his biography, *A Magician Among the Spirits*, Harry Houdini reported that the conjurer was simply a fraud with a dazzling technique; Slade later confessed that it was indeed all an act.

fields. Mix them and an expert will remain in the dark."

The most irresponsible and odious niche in the world of the paranormal is occupied by the psychic healers, who cannot operate legally in the U.S. but lure unfortunate Americans overseas with claims of spectacular cures. Diagnosing illnesses and locating diseased organs by purely psychic means, they perform operations by plunging their hands through what appear to be deep incisions to grasp and remove sickly tissue. In the Philippines, currently the center for psychic surgery, a number of conjurers use sleight of hand and buckets of blood and animal parts to work their wonders. Surrounded by adherents who have been "cured," the ill-educated and often filthy surgeons perform "operations"—slashes of the epidermis, knives in the eye cavity, fingers in the abdomen—sometimes painlessly and always with great flourish.

As one witness to such "surgery" describes it: "The healer pulled some tissue from the area of the 'operation' ...

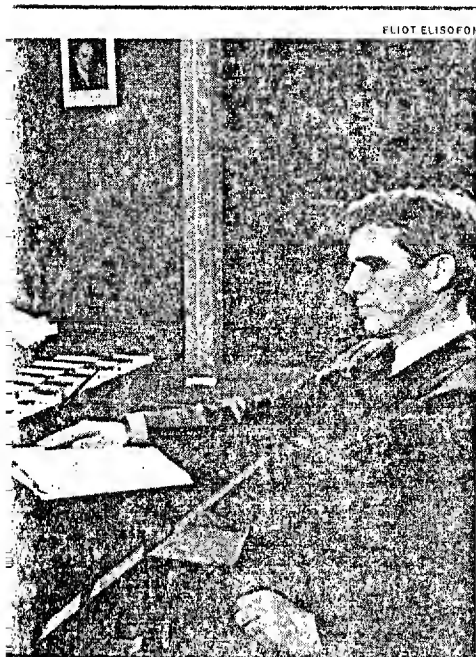
I literally grabbed the cancerous tissue from Tony's hand ... I wanted to have valid medical tests performed on it. The tests, conducted in Seattle, showed that the tissue was 'consistent with origin from a small animal ... there is no evidence in any of this tissue to suggest that this represents metastatic carcinoma from the breast of the patient.' " Tom Valentiné, author of a book on perhaps the best known of the psychic surgeons, Tony Agpaoa, documents the experience of a Mrs. Raymond Steinberg of Two Rivers, Wis. Tony "made a major production" of removing a piece of metal and several screws that had been surgically placed in her hip after an automobile accident. X rays later showed that Agpaoa had removed nothing.

True Believer. But the psychics, and those who profit from them, remain undaunted. In a few months, the respectable publishing firm of Thomas Y. Crowell will publish the story of yet another psychic healer, the late great Brazilian Arigo, *Surgeon of the Rusty Knife*. The author: John Fuller, whose pro-flying-saucer books *Incident at Exeter* and *The Interrupted Journey* were big sellers during the UFO craze of the 1960s. The afterword is written by Geller Biographer Puharich, who in *Uri* incidentally

tells of ex-terrestrial intelligence assuring him that Arigo was not hurt in his fatal car accident in 1971: "There was no pain. He left his body before the crash."

No amount of demonstrable fraudulence, no exposure of the fake, the manipulator, the unscrupulous, ever seems capable of dissuading the true believer in paranormality. James Fadiman, of the Stanford School of Engineering, believes that "most (but not all) parapsychologist demonstrators are also frauds," then gives the classic rationale: "Look at it this way. You think you have powers of clairvoyance, and finally you become a celebrity because of it. You're on the stage or in an experimental situation and sometimes your powers fail you. They do very often for most of these guys. So what do they do? They cheat."

Robert Benchley once separated people into two categories: those who separate people into two categories and those who do not. Parapsychologist Gertrude Schneider of New York's City College is in the first category. Her studies show that on the issue of parapsychology her subjects divide into believing sheep and doubting goats. The sheep almost invariably score higher in tests of paranormal powers. Will the sheep ever convince the ruminating



IN EARLY ESP TEST (1940)



TED SERIOS PROJECTING PICTURES

Perhaps parapsychology's most gullible proponent was Sir Arthur Conan Doyle, creator of the superrationalist detective Sherlock Holmes. Doyle remains the greatest proof that intelligence and scruple cannot compete with naiveté and the desire to accept the paranormal as demonstrable fact. After the death of his son in the Great War, he turned to spiritualism for solace. This led, in time, to investigations of spirits, and eventually to little winged creatures in the bottoms of gardens. In his 1922 volume *The Coming of the Fairies*, Doyle reproduced photographs of a tiny goblin and elves caught by a child's camera. The pictures were manifestly staged; the entire project made all but the blind-

est believers wince. One who did not was a young American botanist named J.B. Rhine. After an inspiring Doyle lecture on spiritualism, Rhine and his wife Louisa immersed themselves in literature published by the Society for Psychical Research. When Rhine later joined the faculty of Duke University, he began a lifelong devotion to psychic research. It was he who coined the terms extrasensory perception and psi (for psychic phenomena); it was he who gave his specialty an academic imprimatur by compiling mountains of statistics about psychic subjects who could "read" cards that they could not see.

From the start, Rhine was criticized

for juggling numbers. (Subsequent researchers have also used questionable procedures, citing "negative ESP" when the number of correct guesses fall below average and "displacement" when subjects call the card before or after the one they are trying to guess.) H.L. Mencken summarized the early views of the dubious when he wrote, "In plain language, Professor Rhine segregates all those persons who, in guessing the cards, enjoy noteworthy runs of luck, and then adduces those noteworthy runs of luck as proof that they must possess mysterious powers." Rhine tightened his laboratory conditions in the 1930s, and much of the criticism withered—but so did his ESP stars.

In the 1960s a psychic superstar came along in the person of Ted Serios, a hard-drinking, onetime bellhop from Chicago. Serios' gift was definitely off-beat: he produced pictures inside a Polaroid camera using nothing but his mind and a little hollow tube he called his "gismo." Reporters Charles Reynolds and David Eisendrath, who observed Serios at work in Denver, had little trouble constructing a device that could be secreted inside a gismo to produce all of Serios' effects. The instrument contained a minuscule lens at one end and a photographic transparency at the other. When the device was pointed at the camera lens and the shutter was clicked, an image was recorded on film. The Reynolds-Eisendrath story was printed in *Popular Photography* and many of Serios' followers were shattered. Again the millennium was deferred.

goats? Will the goats ever understand the faith of others? Since the events have occurred.

Just a few years ago what smug Western rationalist would have accredited acupuncture? Yet the ethnocentric prejudice seemed to disappear almost at a stroke when the Western world learned of James Reston's appendix operation. The New York *Times* columnist submitted to acupuncture after surgery on a trip to China in 1971; thereafter, the unorthodox method was examined throughout the U.S. Today acupuncture is under intense study at several medical centers. Although some of the beneficial effects of "paranormal" medicine have been acknowledged by Western scientists, they are still at a loss to explain it. It was not long ago that most Americans attributed the feats of Eastern yogis to clever fakery. Yet the new Western experimentation with biofeedback* has shown skeptics that the mind can indeed control what are normally involuntary bodily functions. The Menninger Foundation in Topeka, Kans., reports incontrovertible proof that subjects trained by biofeedback can control their blood circulation and lower the temperature of the parts of their bodies at will; migraine headaches can be literally wished away. The ancient yogic mythic skills suddenly seem within the grasp of everyone.

Is it not possible that thoughts—like TV programs—can be transmitted from one brain to another? And if enough energy can be generated by the brain, why should it not influence the roll of dice? Or make a plant respond?

In an epoch when the new physics posits black holes in the universe and particles that travel faster than the speed of light, and has already confirmed the existence of such bizarre things as neutrinos that have no mass or charge, antimatter and quasars, why should any phenomenon be assumed impossible? What is wrong with Physicist Sir James Jeans' attempt to give coherence to an unruly cosmos: "The universe begins to look more and more like a great thought than a great machine"?

The psychic adherent's reply is simple: anything is possible. But simply saying that it is so and then supporting the contention with shoddy or downright fraudulent evidence, is not enough. Psychic phenomena cannot be accepted on

*A process by which one can learn to control involuntary bodily functions (such as heartbeat) through the visual or aural monitoring of physiological data.

faith, they must be convincingly demonstrated to objective people by objective researchers. To date, those demonstrations have not been made.

Any close examiner of psychic investigators and reporters will find a new meaning for Koestler's roots of coincidence. A loose confederacy of parapsychologists parodies the notion of the scientific method. Harold Puthoff, one of the two S.R.I. investigators of Uri Geller, is singled out in *The Secret Life of Plants* as a reputable scientist who has been experimenting with the response of one chicken egg to the breaking of another. He is also a promoter of the bizarre and controversial cult of Scientology, which Ingo Swann, another psychic

University of Virginia. Should the findings prove depressingly negative, it is unlikely that academics or foundations would encourage more chairs, or promote further psychic investigations.

In a way, it is rather a pity that the sheep cannot get together with the goats. At the very least, the paranormal establishment has questioned the dogma, emphasized the ignorance and underlined the arrogance of modern medicine and science. Indeed, modern doctors have scarcely breached the frontiers of the mind. Science has all too frequently destroyed the layman's sense of wonder by seeking materialistic explanations for all phenomena.

As C.P. Snow says: "Scientists regard it as a major intellectual virtue to know what not to think about." Complains one S.R.I. spokesman: "The society we live in doesn't give you permission to have psychic abilities. That is one reason that so much talent is suppressed." As Martin Gardner believes, "Modern science should indeed arouse in all of us a humility before the immensity of the unexplored and a tolerance for crazy hypotheses."

As for the parapsychologists who make many of those hypotheses, they could learn the most valuable weapon in the arsenal of the truth seeker: doubt. One hundred and fifty years ago Charles Lamb observed that credulity was the child's strength but the adult's weakness. That observation is even more valid today, when shoddy or ignorant research is used to lend legitimacy to the most extravagant tenets of the psychic movement.

That is not to say that parapsychology ought to be excluded from serious scrutiny. Some first-rate minds have been attracted to it: Freud, Einstein, Jung, Edison. The paranormal may exist, against logic, against reason, against present evidence and beyond the standard criteria of empirical proof. Perhaps there are reasons why the roll of the dice and turn of the cards sometimes appear to obey the bettor's will. Perhaps the laws of probability are often suspended. Perhaps Geller and other magicians can indeed force metal to bend merely because they will it. Perhaps photographs can be projected by the mind. Perhaps plants think.

Perhaps not.

There is only one way to tell: by a thorough examination of the phenomena by those who do not express an a priori belief. By those for whom probability is not a mystique but a comprehensible code. By those who have nothing to lose but their skepticism. Until such examiners are allowed to play the psychic game, it is unlikely that the paranormal will escape the ambiguous utterance against it in *Leviticus*: "Do not turn to mediums or wizards; do not seek them out, to be defiled by them..." And that most wondrous and mysterious of entities, the human mind, will remain an underdeveloped country.



PSYCHIC SURGEON OPERATING IN PHILIPPINES
Sometimes painlessly, always with flourish.

tested by S.R.I., also practices. William Targ, a Putnam executive, recently contracted to publish Astronaut Ed Mitchell's forthcoming book, *Psychic Exploration, A Challenge for Science*. At the signing, Targ stated that "the real race now between the Russians and us is in the area of sciences like ESP." Mitchell's Institute of Noetic Sciences helped to fund S.R.I.'s Geller research, which was conducted largely by Puthoff and Russell Targ, who happens to be Editor Targ's son.

The questionable connections of many psychic researchers, in addition to the paucity of objectively verifiable results in their work, has made it difficult to raise funds for research; parapsychologists barely squeak by with money from a few foundations and gifts and encouragement from occasional philanthropists like Stewart Mott and Manhattan Realtor John Tishman. There is only one academic chair on parapsychology